

REMARKS

Reconsideration and removal of the rejections are respectfully requested. Claims 1-15 were in the application, claims 2, 4 and 9-15 were withdrawn, claims 1-8 have been cancelled and new claims 16-24 substituted therefore.

Withdrawn claims 2 and 4 have been replaced by new claims 18 and 20 so as to be in proper condition for rejoinder should claim 16 be considered allowable.

Claim 16 replaces claim 1 and also included substantially the limitations of claim 3 therein. In addition, claim 16 has been extensively revised so as to conform to U.S. standards of claim drafting, and also for clarity.

In particular, the claimed method involves delivering a further material through an applicator associated with an inner mould part or core, during or immediately following vibration applied to the concrete in the mould space for maintaining a fluid phase.[para. 0017] Rotating the inner mould part or core during application of the further material forms the inner layer having the greater density surface structure on an inner surface of the concrete. [para. 0042, 0046] Also, claim 16 confirms that the inner layer can be provided on part or all of the inner surface of the concrete as described in para 0053. No new matter is involved in these amendments.

As to the information disclosure statement, a supplemental IDS is enclosed, together with a Danish search report showing that the German Patent was considered an "A" background reference. An English language abstract is also enclosed, and so the document should be considered by the Examiner.

Claims 5-8 were cancelled and new claims 21-24 with claims 21-23 placed in proper multiple dependent claim form, and claim 24 now depending from claim 16.

Claim 1 was rejected as being anticipated by Kern, U.S. Patent no.

5,051,223. As the limitations of claims 1 and 3 are both present in new claim 16, this rejection is rendered moot.

Claim 1 was also rejected as being obvious over Kern and further in view of Hutchinson, U.S. Patent no. 2,356,852.

For the reasons stated above, this rejection is also now moot.

Claim 3 (now claim 16) was rejected as being obvious over Kern solely, or further in view of Hutchinson and further in view of Steiro, U.S. Patent no. 4,039,642.

Kern was cited as describing the application of an impregnated layer, using pressure to penetrate into the surface for about 10 mm. Note that this impregnation is of a resin which infiltrates the concrete, that is, it is not a material that can provide an inner layer having a greater density structural surface, instead, this is a material which is diffused by pressure into the concrete.

On the other hand, the applicants invention forms a layer of greater density material, with this being applied during or immediately following vibration of the concrete to maintain the concrete in a fluid phase. In essence, the concrete being fluid can be displaced, allowing intrusion by and formation of an inner layer of greater density which is formed against an inner surface of the concrete forming the outer layer. Kerns in fact teaches the opposite, only applying the liquid under pressure after the concrete has been compacted and is in essence a rigid solid structure. While it may be sufficiently soft to allow pressure diffusion into the concrete for 10 mm, it must be rigid to prevent the pressurized fluid from creating pockets or holes which would be detrimental to the concrete pipe.

The applicants invention thus teaches the opposite, applying the further material when the concrete is still in a fluid phase.

While Hutchinson was cited as disclosing the use of vibration, this is not associated with promoting application of an inner layer having a greater density

structural surface, and even if this were combined with Kerns, Kerns would not permit the resin application until the concrete is nearly set, and firmly compacted, and so the combination does not lead one to the applicants' invention.

Steiro was cited as teaching the making of concrete pipe using a longitudinal opening. However, this is used in an outer mould part, not a core, the process involves producing concrete pipes in a horizontal mold, and the opening is used to fill the mold space with concrete.

While a longitudinal opening may be known generally, to render obvious the claimed invention, the opening must be part of the applicator associated with the inner mould part or core, and used to deliver a further material.

Prior art is considered from the view point of one skilled in the art, and it is difficult to consider how one skilled in the art would use this longitudinal opening in Kerns or Hutchinson, let alone in a way which would render the claimed invention obvious.

In conducting an obviousness analysis, "[a] fact finder should be aware . . . of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 167 L. Ed. 2d 705 (2007). This is because the genius of invention is often a combination of known elements that in hindsight seems preordained. In *re Omeprazole Patent Litig.*, No. MDL 1291, 490 F. Supp. 2d 381, 2007 U.S. Dist. LEXIS 39670, at *400-01 (S.D.N.Y. May 31, 2007) (citation omitted) (quoting *KSR*, 127 S.Ct at 1742); see also *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed. Cir. 1985), *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 961 (Fed. Cir. 1983) (stating that "virtually every claimed invention is a combination of old elements").

The Court in *KSR* also wrote, "[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal

conclusion of obviousness." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 167 L. Ed. 2d 705 (2007) ("To facilitate review, this analysis should be made explicit.") (citing *Kahn*, 441 F.3d at 988... "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

The *KSR* decision has lead the U.S. Patent office to issue guidelines for applying the decision during the examination of claims. The guidelines as well as the *KSR* decision itself both state the continued value of the teaching, suggestion or motivation test as relates to a finding of obviousness, as well as postulates a general question as to the predictability of the results achieved from a proposed combination, taken from the view of one skilled in the art.

In reviewing the patents cited by the examiner, it is clear that the rejection is based on a hindsight reconstruction, and even then, the combination is lacking. To combine *Steiro* with the other patents, one must ignore the differences in location, function as well as outcome when trying to fit the longitudinal opening into either of *Kern* or *Hutchinson*. Consequently, the combination is improper and the rejection should be withdrawn.

As the claimed invention of claim 16 and the claims depending therefrom are not rendered obvious by the cited art, claims 16-24 are believed to be patentable and the rejection should be withdrawn.

Based on the above amendments and remarks, favorable consideration and allowance of the application are respectfully requested. However should the examiner believe that direct contact with the applicant's attorney would advance the prosecution of the application, the examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

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